

### **REMARKS/ARUMENTS**

Upon entry of the instant amendment, claims 31, 58 and 60 will be amended, and independent claims 61-63 will be added, whereby claims 30-63 will be pending. Claims 30, 44, 55 and 61-63 are independent claims.

Applicants are amending the claims herein correct an idiomatic error in claim 31, to clarify claims 58 and 60, and to present additional claims in conformance with claims that were previously filed in response to the Office Action dated May 21, 2002. In view of the examiner's previously expressed hesitancy regarding preventive claims and possible inherency, the claims have been presented directed to treating bacterial infection. As previously noted by Applicants, the amendments made herein are being made without prejudice or disclaimer of the subject matter recited therein. In this regard, Applicants preserve the right to file continuation and/or divisional applications to any subject matter disclosed in the instant application, and to present further arguments relating to patentability thereof.

Reconsideration and withdrawal of the rejections of record are respectfully requested.

### **Discussion Of Amendment And October 19 and 28, 2004 Telephone Interviews**

Applicants express appreciation for the telephone interview on October 19, 2004 with the examiner. During this interview, the undersigned requested support for the assertion in the Office Action that, "The references clearly teach that xylanase is known to be used to treat bacterial infections." In response, the Examiner indicated that Hansen, U.S. Patent No. 5,817,500 makes such disclosure at the top of column 2, and thereafter terminated the interview.

During October 28, 2004 telephone discussions with the examiner's supervisor, the supervisor appeared to agree that the Office Action was not sufficiently informative. The undersigned was advised that a response should be filed, and that the application will be reconsidered upon presentation of the response. In particular, it appeared from the discussion with the supervisor that apparently the 35 U.S.C. 112, first and second paragraph, rejections would be withdrawn. Moreover, the supervisor indicated the response should be brief in that the invention would be further searched, and a clearer rejection would be set forth if a rejection of the claimed invention was to be maintained.

#### **Response To Restriction Requirement**

Applicants once again confirm the election of Group I, claims 30-43, with traverse. Applicants further note that Group II, claims 44-60 stand withdrawn from further consideration by the Examiner as being drawn to a non-elected invention.

In response to the Restriction Requirement, Applicants respectfully submit that the requirement is not appropriate, because as previously argued there is not a serious burden to examine each of the pending claims especially when similar subject matter was previously examined in the instant application. In any event, Applicants are permitting the non-elected claims to remain pending possible rejoinder upon allowance of the elected claims.

Still further, at least newly-presented claim 61 should be included with the elected claims. Also, because claims similar to claims 62 and 63 have already been examined, these claims should also be under consideration by the examiner.

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In view of the foregoing, it is respectfully requested that the examiner reconsider the requirement for restriction, and withdraw the same so as to give an examination on the merits on all of the claims pending in this application or at least to rejoin the non-elected claims upon allowance of the elected claims..

**Response To Rejections Under 35 U.S.C. 112, First And Second Paragraphs**

Claims 30-43 are rejected under 35 U.S.C. 112, first and second paragraphs, as failing to comply with the written description requirement and as being indefinite.

In response and as noted above, during the above-noted telephone discussion with the supervisor, it appeared that the supervisor indicated that these rejections would be reconsidered, and apparently be withdrawn, and that only brief remarks need be presented.

Applicants respectfully submit that the claims clearly denote Applicants' invention so that one having ordinary skill in the art can readily understand the metes and bounds of the claims, including the fact that xylanase is present in the claims.

In particular, Applicants once again note that the recitation of "in the absence of xylanase" relates to the amount of antimicrobial drug in the diet. One having ordinary skill in the art would readily understand that xylanase is present in the method of treatment recited in claim 30 and the claims dependent therefrom.

Moreover, as pointed out to the supervisor during the above-noted telephone discussion, at least the first three paragraphs of Applicants' specification disclose the treatment of bacterial

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infections in chickens, whereby there is support for the language “in chickens having bacterial infection”.

Accordingly, these grounds of rejection should be withdrawn.

### **Response To Rejections Based Upon Prior Art**

Applicants note that the following rejections are set forth in the Office Action:

Claims 30-43 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2,287,867 (hereinafter “GB ‘867”), Bedford et al., U.S. Patent No. 5,612,055 (hereinafter “Bedford ‘055”), or Bedford et al., U.S. Patent No. 5,624,678 (hereinafter “Bedford ‘678”)

Claims 30-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Clarkson et al., U.S. Patent No. 5,902,581 (hereinafter “Clarkson”) or Hansen et al., U.S. Patent No. 5,817,500 (hereinafter “Hansen”).

Claims 30-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB ‘867, Bedford ‘055, Bedford ‘678, Clarkson or Hansen.

The rejections are primarily based upon the assertion that, “The references clearly teach that xylanase is known to be used to treat bacterial infections.”

As noted above, the Examiner supports this assertion by referring to column 2 of Hansen. However, Hansen is directed to improved feed enhancing enzymes which have excellent thermostability in order that the feed enhancing enzymes can be incorporated into feed under conditions preventing microbial infections in the feed. Hansen does not disclose that his

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thermostable feed enhancing enzymes have any antimicrobial activity when administered in a chicken diet.

Expanding upon the above, Applicants note that Hansen discloses, beginning at column 1 line 64, that:

According to the present invention it has now been found that when compared to conventional feed enhancing enzymes, the xylanase derived from *Thermomyces lanuginosus* is an excellent feed enhancing enzyme which shows significant improvement of the feed utilization when added to animal feed. Moreover, owing to an excellent thermostability, the xylanase preparation derived from *Thermomyces lanuginosus* is particularly well suited for being processed into feed additives at conditions preventing microbial infections, in particular *Salmonella* infection. It has also been found that the xylanase derived from *Thermomyces lanuginosus* exerts a significant reduction of digesta viscosity, which indicates a significant improvement in the chicken feed conversion efficiency.

Following the disclosure of Hansen, one having ordinary skill in the art would understand that the xylanase disclosed by Hansen can be processed into feed at conditions that prevent microbial infections in the feed itself. Hansen does not teach nor suggest Applicants' invention of treatment of bacterial infection in chickens, but merely relates to processing of the feed.

Accordingly, as there is no showing in any of the documents utilized in the rejections to support the assertion in the rejections, the rejections are without appropriate basis and should be withdrawn.

Moreover, the rejections of record should be withdrawn for the reasons previously advanced by Applicants in their previous responses. For the sake of brevity these arguments will not be repeated in view the supervisor's indication that a brief response should be filed, and that

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the application will be subjected to further search and examination, and clarification of the rejections, if rejections are maintained.

In view of the above, the rejections of record should be withdrawn.

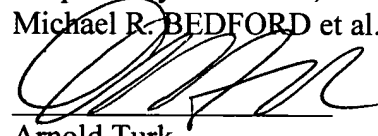
### **CONCLUSION**

For the reasons advanced above, Applicants respectfully submit that all pending claims patentably define Applicants' invention.

Allowance of the application with an early mailing date of the Notices of Allowance and Allowability is therefore respectfully requested.

Should the Examiner have any further comments or questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
Michael R. BEDFORD et al.

A handwritten signature in black ink, appearing to read 'Arnold Turk', is written over a horizontal line.

Arnold Turk  
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November 25, 2004  
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